Professional LED lighting

AD-LC6 MKII LED DRIVER MANUAL

Version 2.2
Latest software version: V1.7

AD-LC6 MKII LED-driver

The AD-LC6 MKII is a high power 6 channel LED-driver. This versatile LED-driver can be used for our RGB, single colour and tunable white LED modules as well as our LED spot range . The driver is controllable through DMX-512 but also offers stand-alone functions and is configurable with its internally selectable user modes. The refresh rate of this driver is adjustable up to 1800Hz which makes this driver suitable for studio applications.

This LED-driver is also available as a 12 channel version.

256462

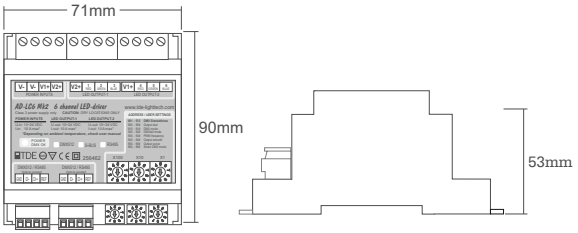
SPECIFICATIONS

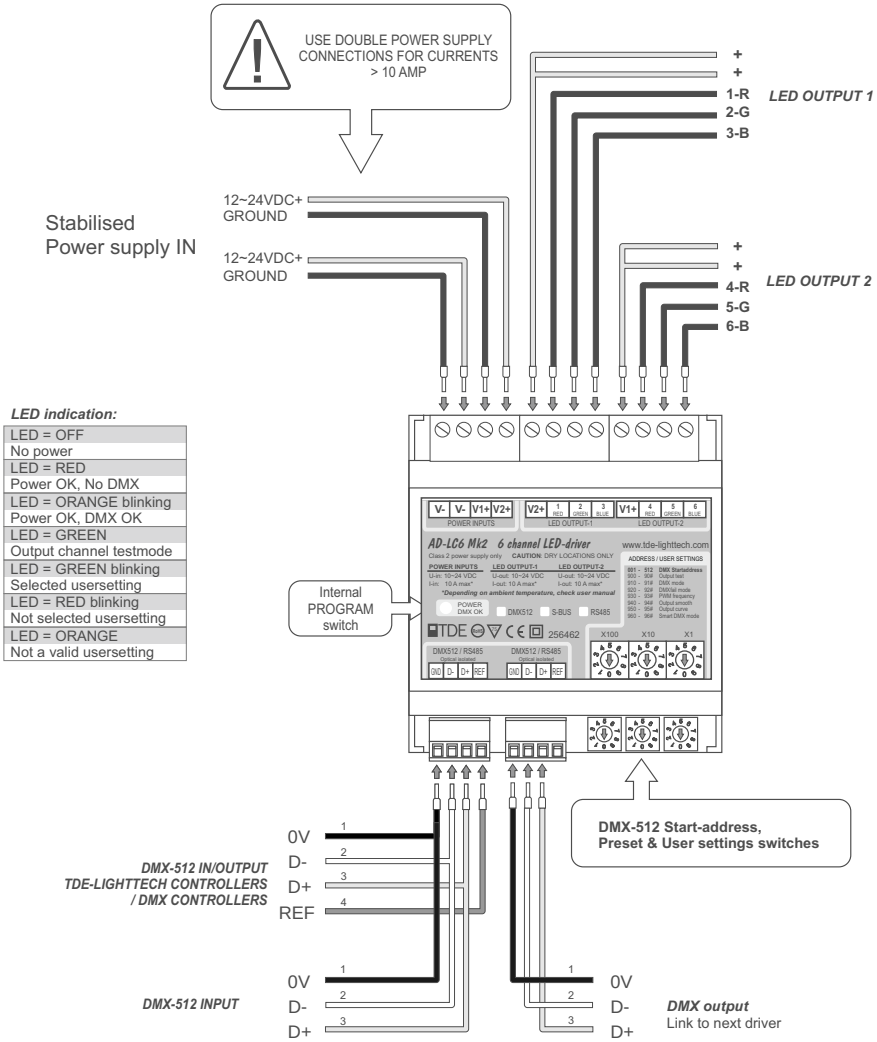
- Channels	: 6 (2 x RGB)
- Power input	: 12 ~ 24VDC
- Output voltage	: 12 ~24VDC PWM (Depending on input power)
- Output per channel	: 40 Watt (12VDC)
	: 80 Watt (24VDC)
- Current per channel	: 3,3A
- Output total	: 240 (12VDC)
	: 480 (24VDC)
- Refresh rate	: 100 ~1800Hz adjustable
- Control in/out	: DMX-512 / 1990 galvanic isolated
- Input Connector	: Print connector
	: 8 pin Rj45 (optional)
- Screwterminal input	: 2,5mm²
- Housing	: DIN-rail (4 module width)

ARTICLE NUMBER

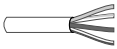
100.50.09	- AD-LC6 MKII LED-driver

DIMENSIONS





DMX WIRING



UTP / FTP (ANSI E1.27-2)

Orange:	(DMX-) Data 1
Orange/White:	(DMX+) Data 2
Brown:	(-) Common
Brown/White:	(-) Common

XLR-3P

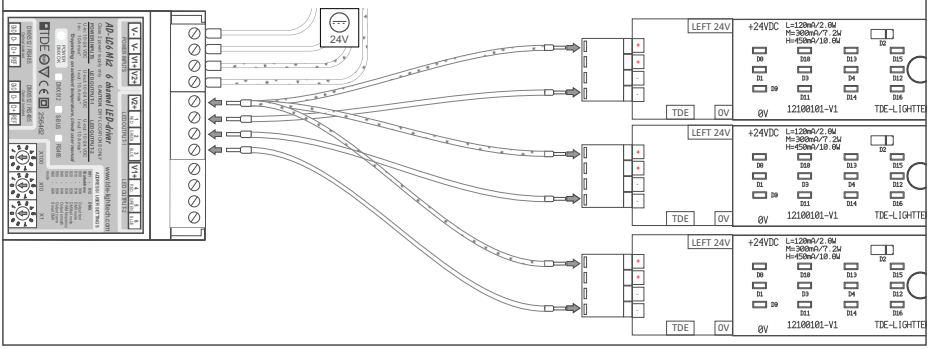
Pin 1:	(-) Common
Pin 2:	(DMX-) Data 1
Pin 3:	(DMX+) Data 2

XLR-5P

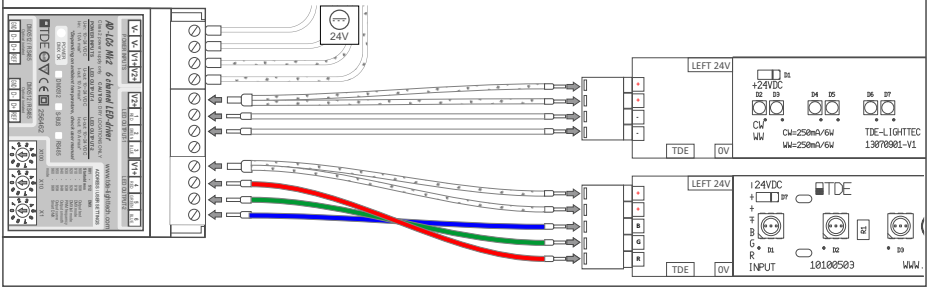
Pin 1:	(-) Common
Pin 2:	(DMX-) Data 1
Pin 3:	(DMX+) Data 2
Pin 4:	Not used / (REF Supply
Pin 5:	Not used

All our suitable products are extensively tested with our LED-drivers please see the illustrations below for examples of possible configurations. The configurations below are only show a few configurations, there are numerous of configurations possible

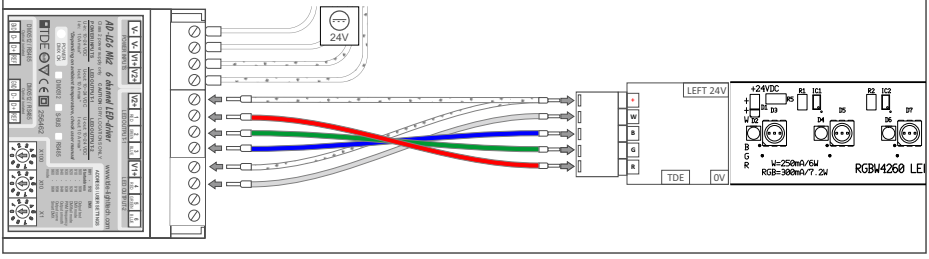
3 x Single colour LED module in combination with our AD-LC6 MKII LED driver



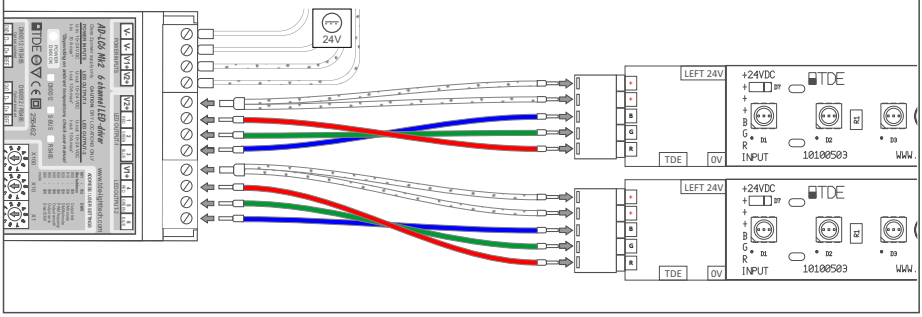
Tunable white LED module in combination with RGB LED line and AD-LC6 MKII LED driver



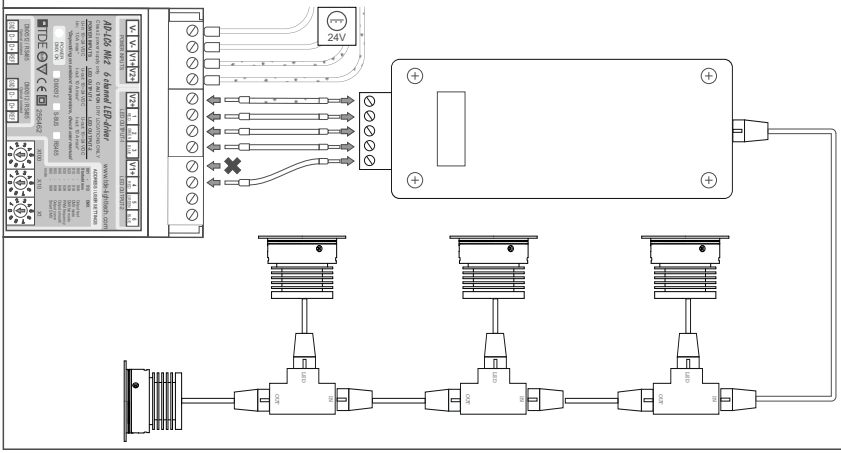
RGBW4260 LED module connection



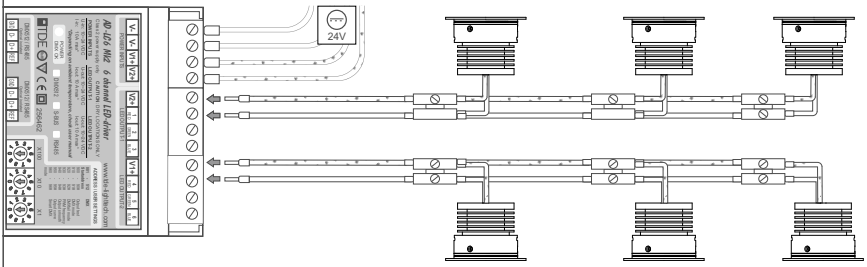
2 x RGB LED module and AD-LC6 MKII LED driver



Cursa / Canopus RGBW LED spot in combination with AD-LCRGB PWM and AD-LC6 MKII LED driver

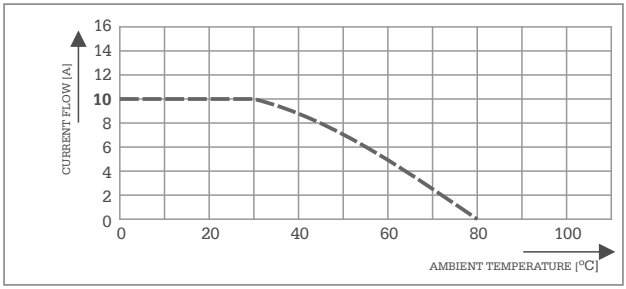


Cursa / Canopus single colour LED spot in combination with AD-LC6 MKII LED driver



OUTPUT POWER

The output of the LED driver depends on the current flow and the ambient temperature. As seen in the graphic below the maximum amount of current that can flow through the LED driver decreases in higher temperatures.

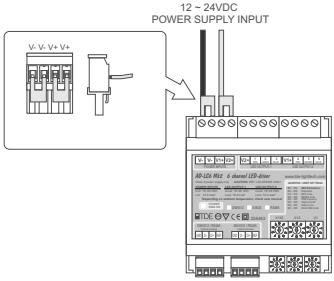


SCREWTERMINALS

The screw terminals allow a maximum cable core of 2,5mm². When connecting the wiring of the LED product to the AD-LC6 MKII make sure to use flexible cable with ferrules to ensure a proper connection. Also note when fastening the wires please make sure not to overtighten the screws.

POWER INPUT

The AD-LC6 MKII LED driver has two power inputs. When using a single connection please use the supplied jumpers. This is to prevent the connector from overheating.
Place the jumper between V- and V- and between V + and V + of the power input. See the illustration on the right.

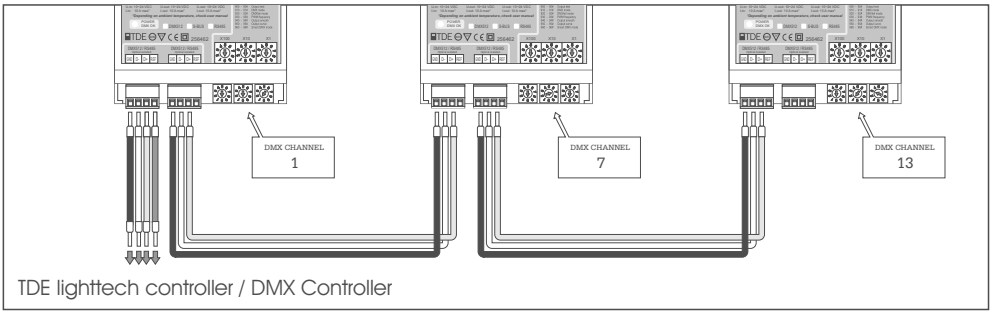


To set a DMX startadres on the AD-LC6 MKII LED driver turn the dipswitches on the LED driver to the desired adress.

Example start adres 256 :

In order to control multiple AD-LC6 MKII LED drivers please make sure to set the DMX startadress on the LED-driver. When the default usermode (910) is set, every additional LED driver has to add +6 to their start adress in order for individual control. See an example below:

The drivers have the default user mode 910 which is 6 channel mode every additional driver starts six channels further.



PROGRAMMING USERMODES

The AD-LC6 MKII has the unique feature to allow different configurations. The dipswitches on the driver allows the user to set a custom usermode. Please view the next page for the different usermode settings.

How to adjust the usermodes

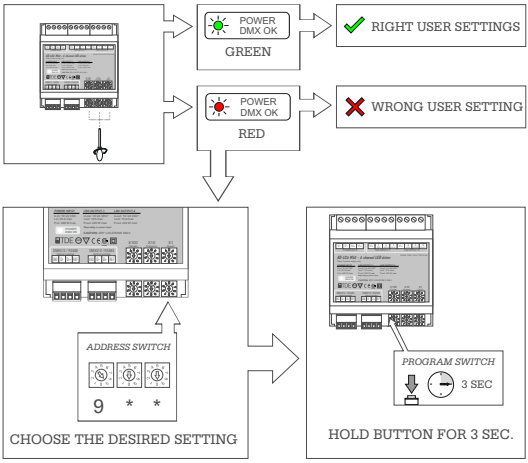
- Set the desired usermode number with the dipswitches (see next page for usermodes).

- When set either a red or green LED will light up on the display.
(when green the desired usermode has been configured previously).

- When the LED is red you can set the usermode by holding the programming button, which can be found on the left of the dipswitches.

- Hold the programming button for 3 seconds or longer.

- The LED will now turn green and the right usermode has been set



[90#] Output test:
Select this option to test the output channels

900 All channels on
901 Ch1 = 100%
902 Ch2 = 100%
903 Ch3 = 100%
904 Ch4 = 100%
905 Ch5 = 100%
906 Ch6 = 100%
907 RGB-loop Ch1..3
908 RGB-loop Ch4..6
909 RGB-testloop Ch1..6

[91#] DMX-mode:
Set the required DMX-mode to one of the different output patch settings

910 DMX [1..6] = Ch [1..6]_____(Default)
911 DMX [1..3] = Ch [1..3+4..6]
912 DMX [1] = Ch [1+2+3+4+5+6]
913 DMX [1],[2] = Ch [1+2+3],[4+5+6]
914 DMX [1],[2],[3] = Ch [1+2],[3+4],[5+6]
915 DMX [1..3],[4] = Ch [1..3],[4+5+6]
916 DMX [1],[2],[3],[4]= Ch [1..2],[4+5],[3],[6]

Tunable white modes:
917 DMX[1..6] = Ch[1+2], [3+4], [5+6]
918 DMX[1,2] = Ch[1+2+3], [4+5+6]
The tunable white modes are only used for our tunable white LED module range.

[92#] DMXfail-mode:
Set the required DMXfail-mode to set the output behaviour when DMX-signal fails

920 All outputs unchanged_____ (Default)
921 All outputs OFF (0%)
922 All outputs ON (100%)
923 RGB-loop Ch1..6
924 Ch1 = 100%
925 Ch2 = 100%
926 Ch3 = 100%
927 Ch4 = 100%
928 Ch5 = 100%
929 Ch6 = 100%

[93#] PWM-output frequency:
Select this option to adjust the PWM-frequency

930 137Hz
931 220Hz
932 320Hz_____ (Default)
933 457Hz
934 582Hz
935 712Hz
936 916Hz
937 1282Hz
938 1603Hz
939 50...2000Hz, selectable with DMX channel-7

[94#] Output smooth settings:
In this setting the smoothing effect of the output brightness can be set. This can be used when using low DMX-framerate controllers or for super smooth architectural lightcontrols.

940 Off (No smoothing effect)
941 Minimum
942 Standard_____(Default)
943 Extra
944 Maximum

[95#] Output-curve selection:
Set the required Output-curve. In the constant output modes (with RGB-LED's) one colour has the same brightness as two or more colours.
Normal = R+G+W = 300% (= standard)
Mode 953 = R+G+W = 200%
Mode 954 = R+G+W = 100%

950 Standard curve_____(Default)
951 Linear curve
952 Deep curve (TV-studio applications)
953 Constant output brightness (max. 200%)
954 Constant output brightness (max. 100%)

935 Tunable white mode 2ch.
936 Tunable white mode 1ch.

To ensure proper functioning of the LED driver with a third party product please contact us for information.

In the view of a constant development of our products, we reserve the right for changing technical data and features without prior notice.